

Figure 1: Correct attachment of tubing

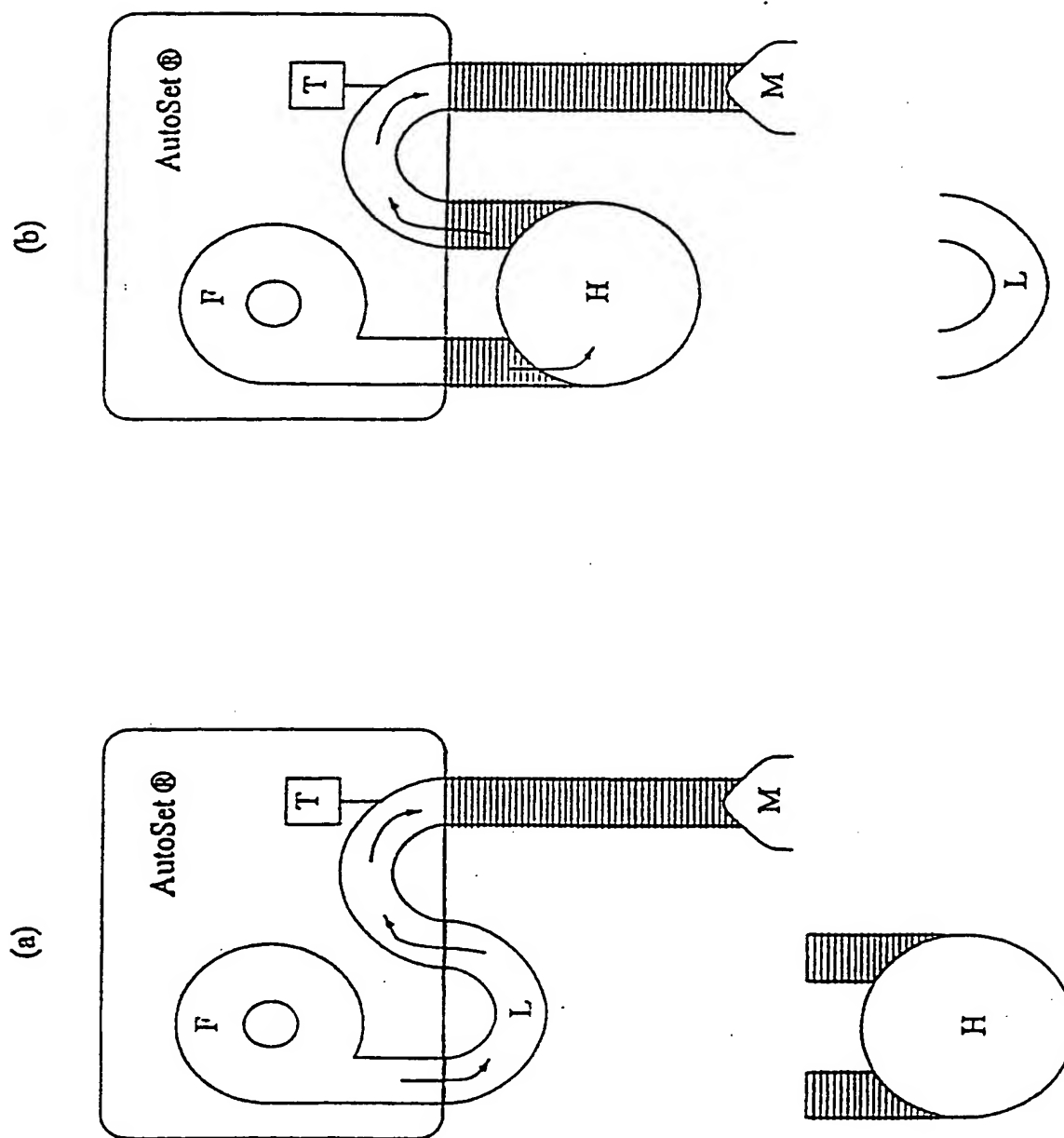
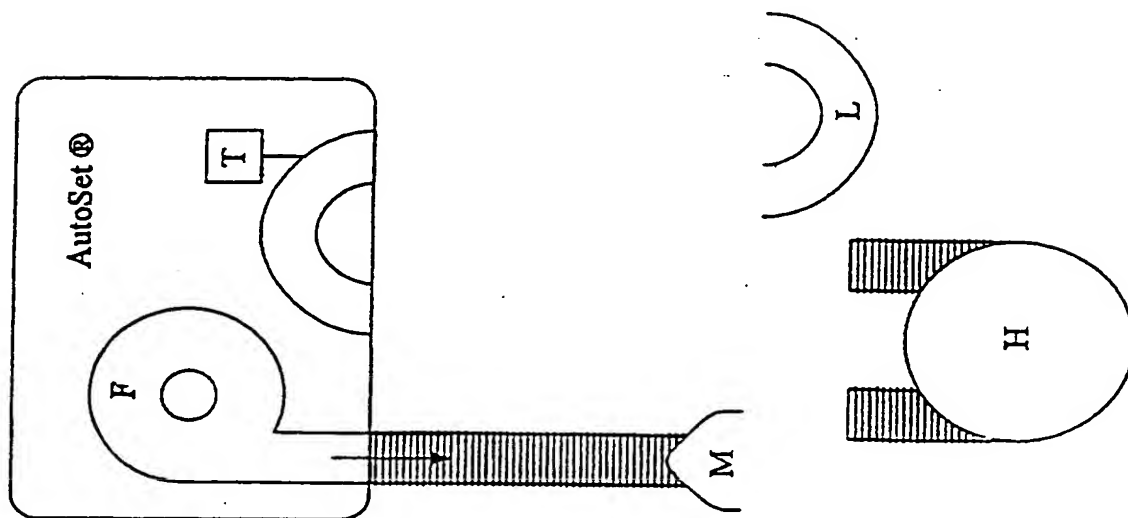
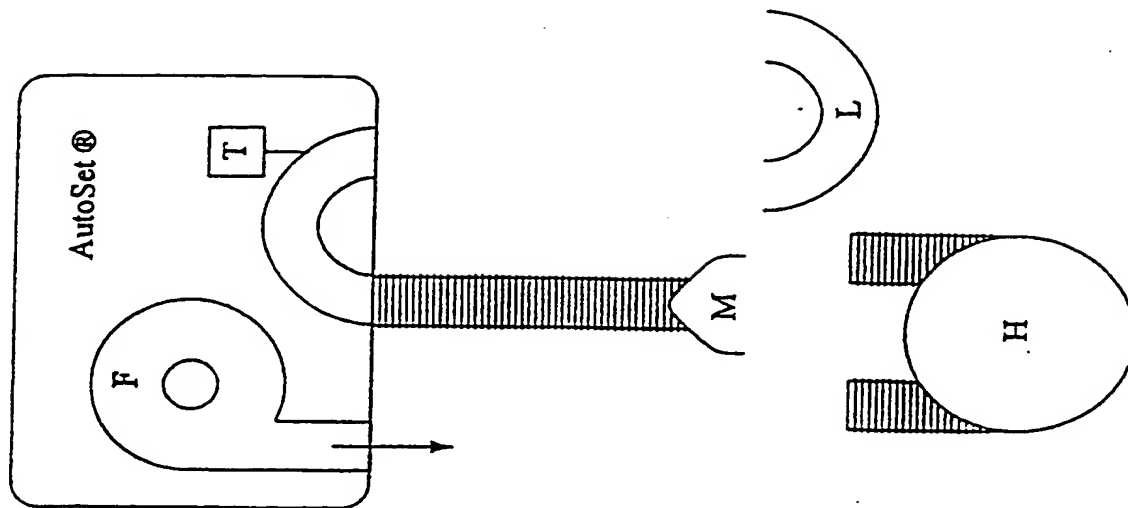


Figure 1: Incorrect attachment of tubing

(c)



(d)



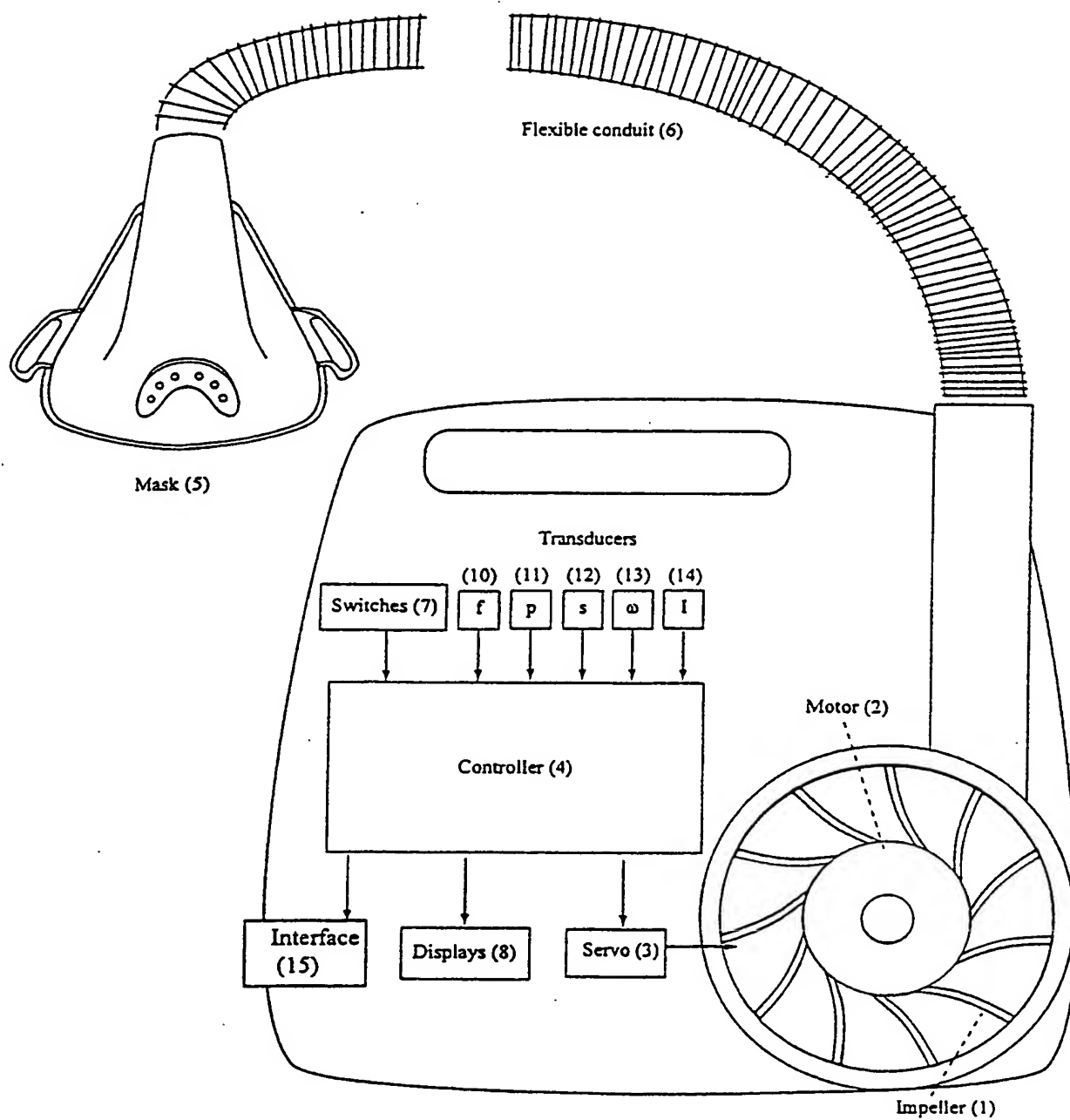


Figure 2: CPAP apparatus

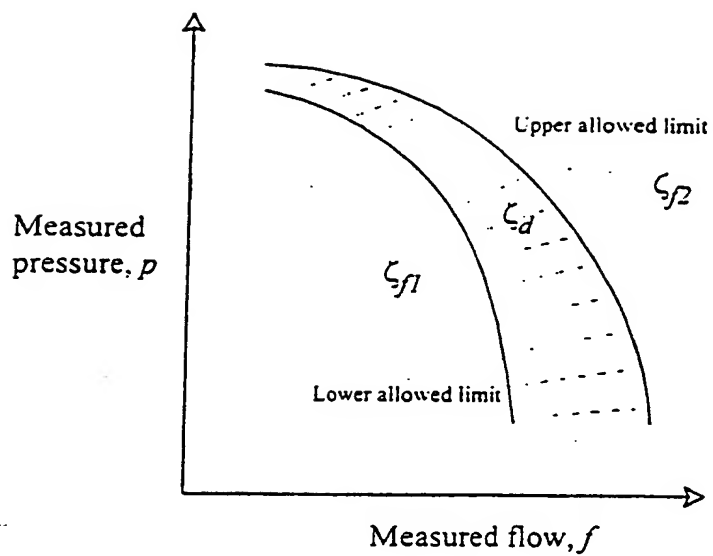


Figure 3a: High motor speed (ω) operation

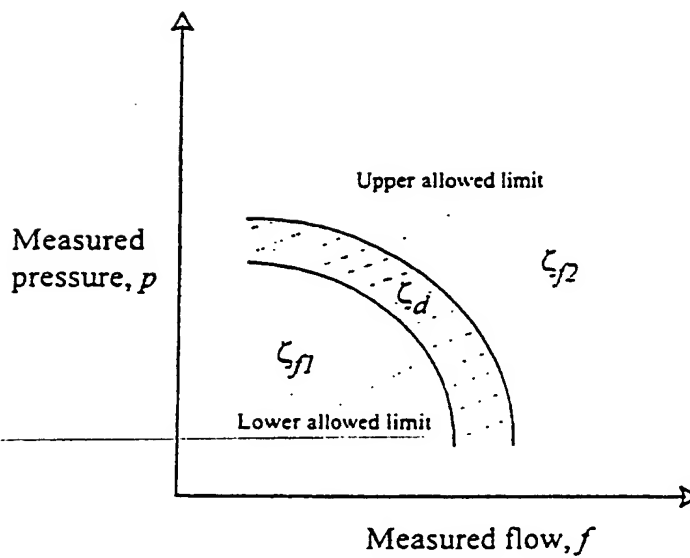


Figure 3b: Low speed motor speed (ω) operation

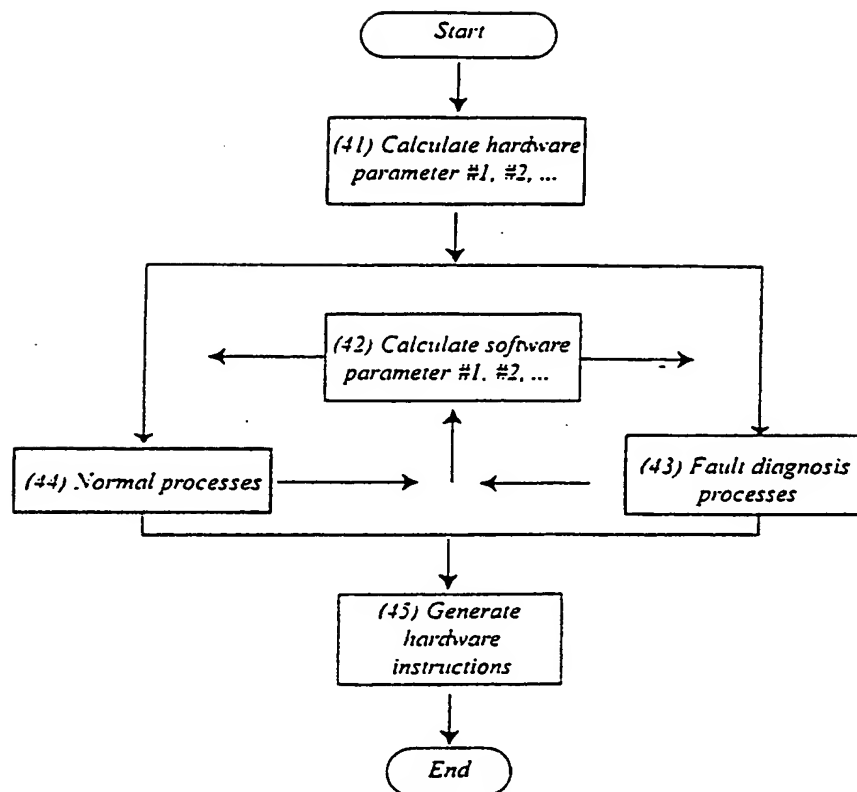


Figure 4: Fault diagnosis implemented in overall software processes

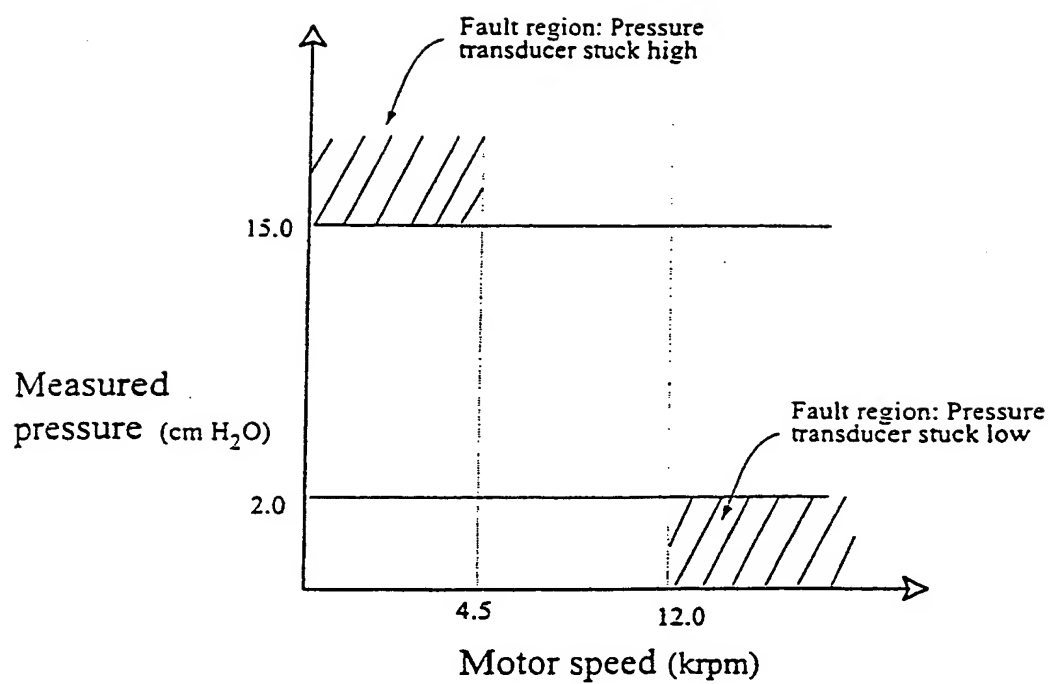


Figure 5: Pressure transducer fault regions

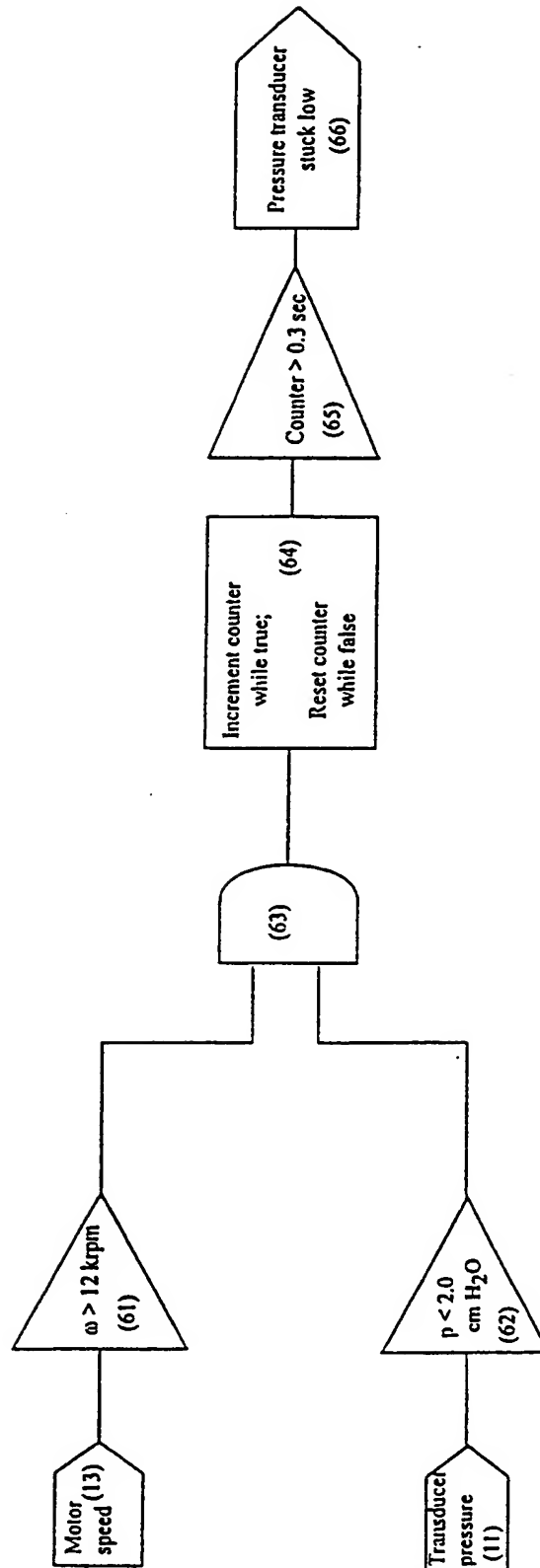


Figure 6: Detect Pressure Transducer stuck Low

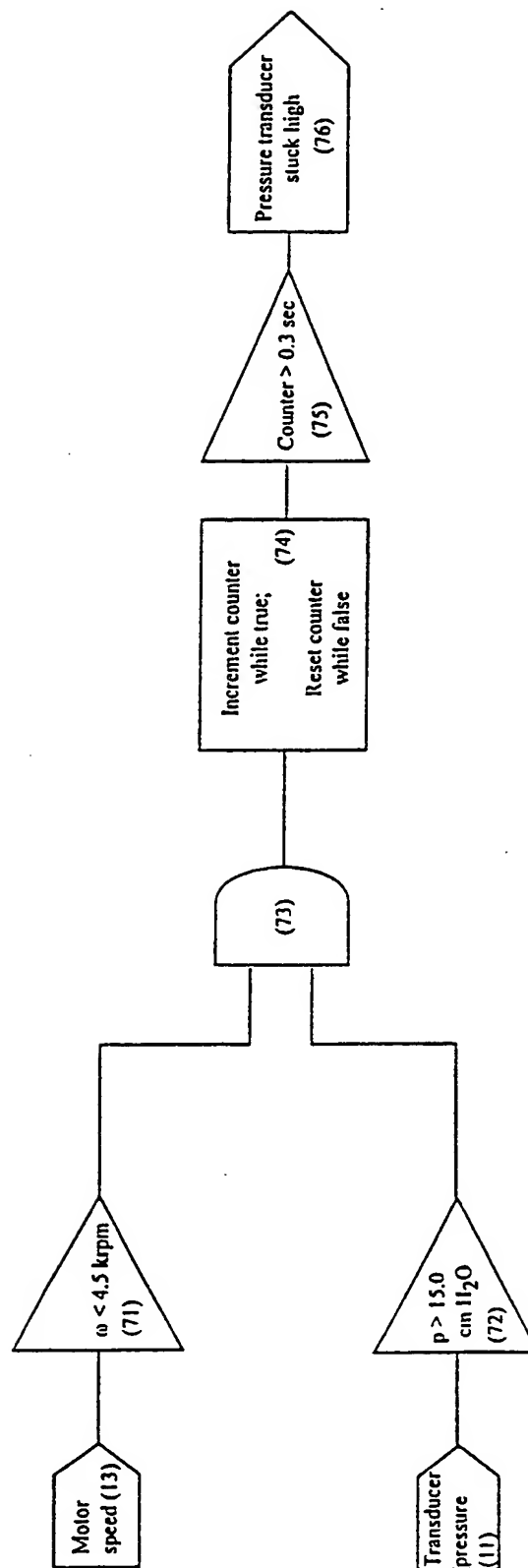


Figure 7: Detect Pressure Transducer stuck High

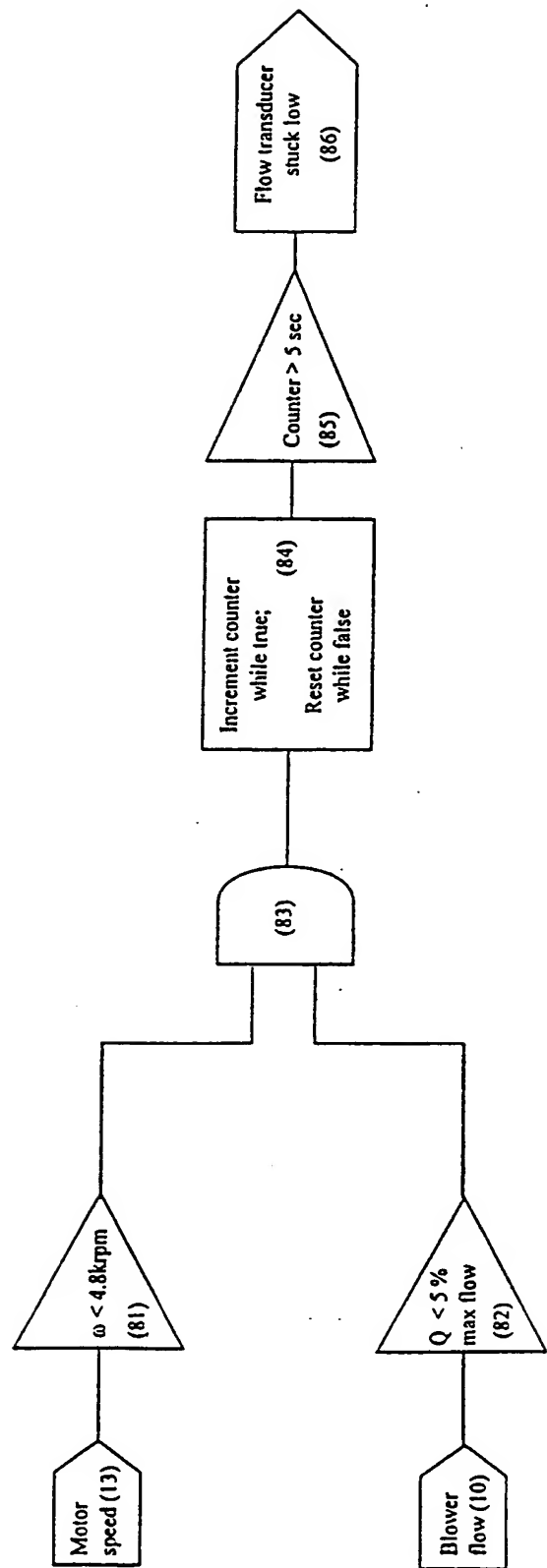


Figure 8: Detect Flow Transducer Stuck Low

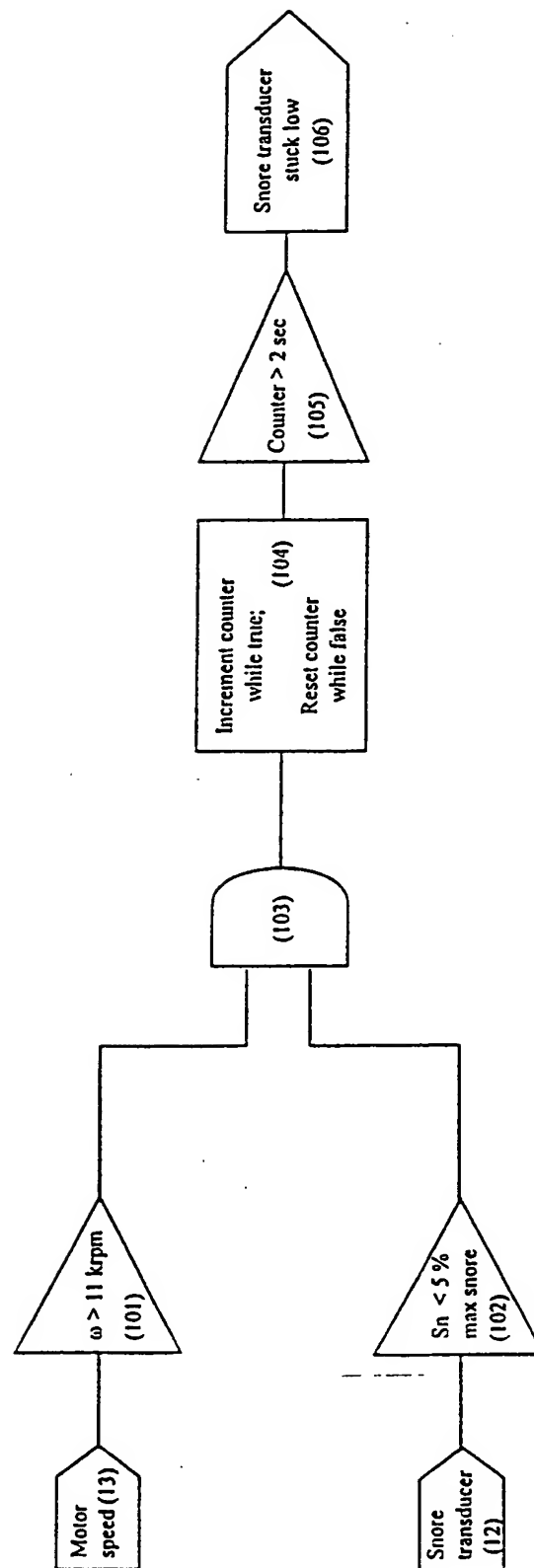


Figure 10: Detect Snore Transducer Stuck Low

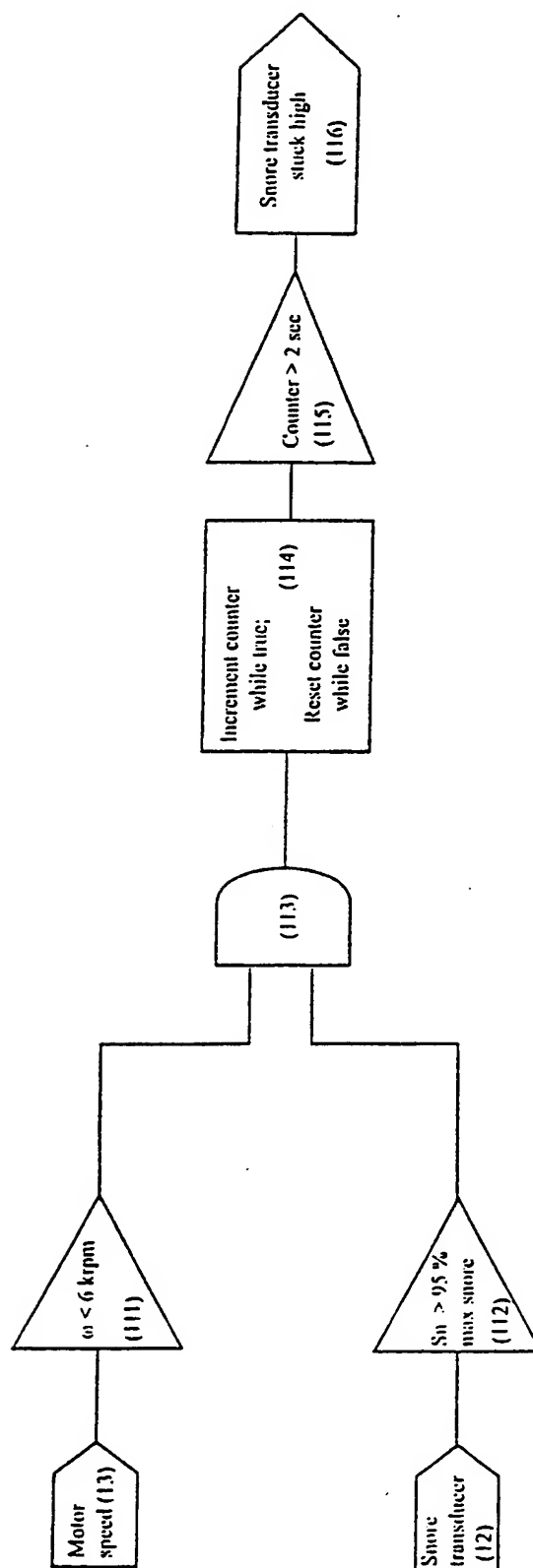
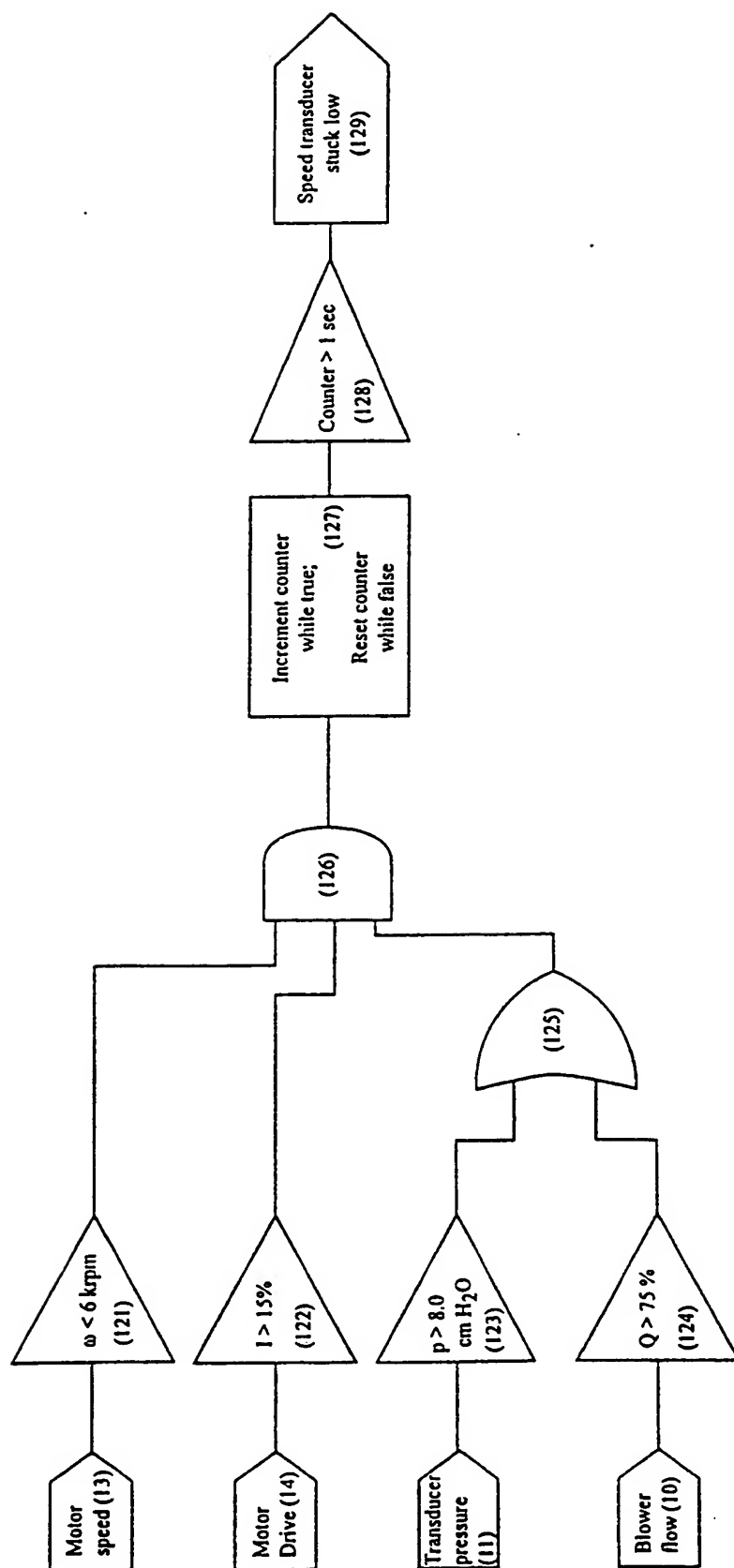


Figure 11: Detect Snore Transducer Stuck High

*Figure 12: Detect Speed Transducer Stuck Low*

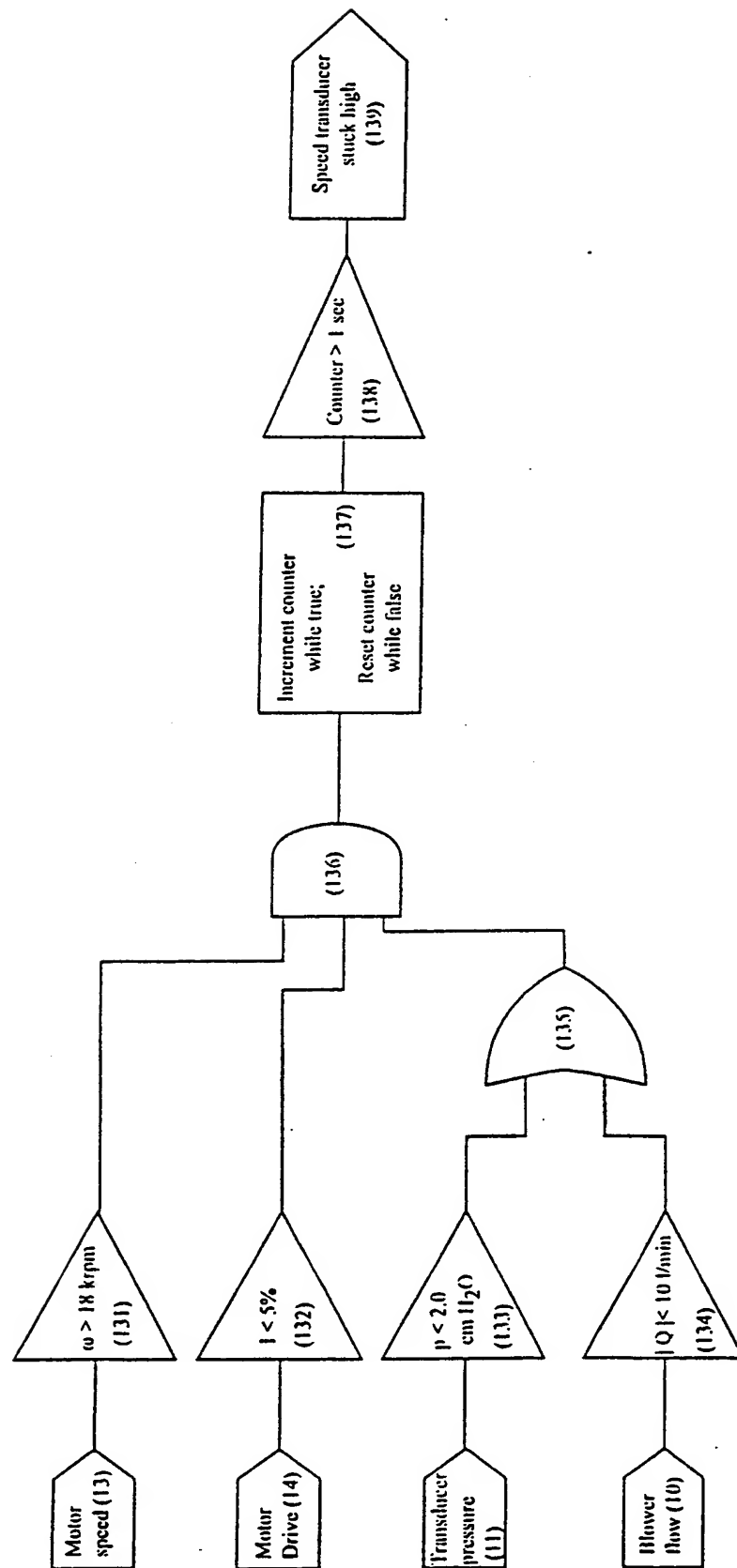
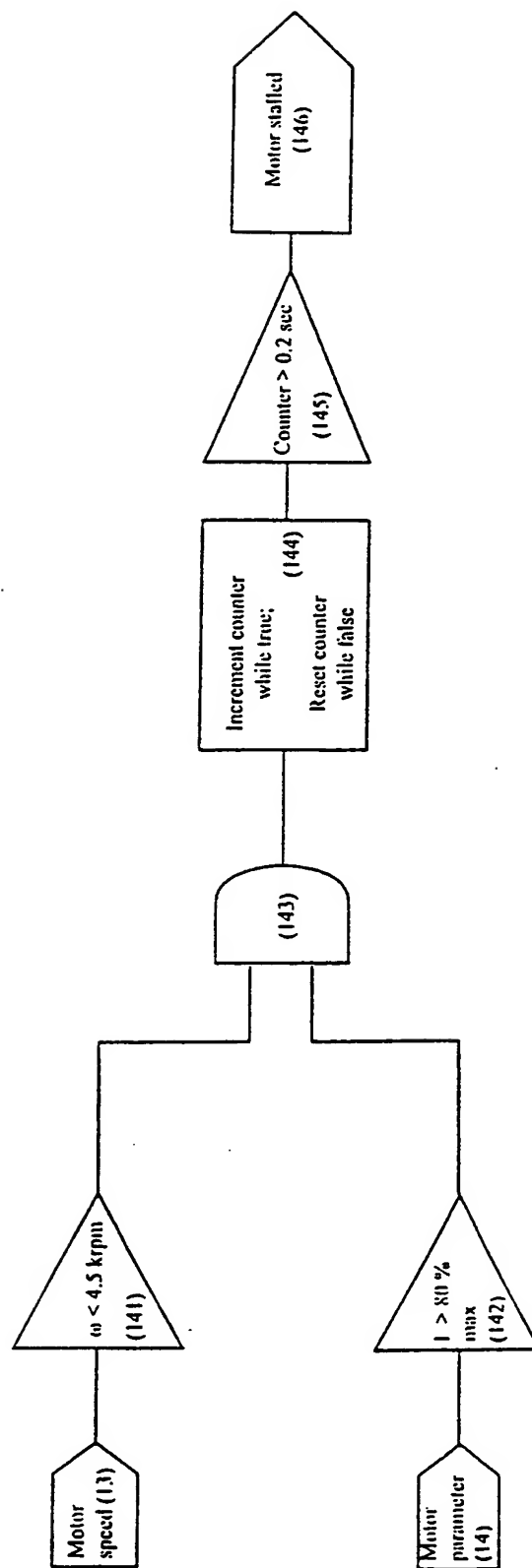


Figure 13: Detect Speed Transducer stuck High

*Figure 14: Detect Stalled Motor*

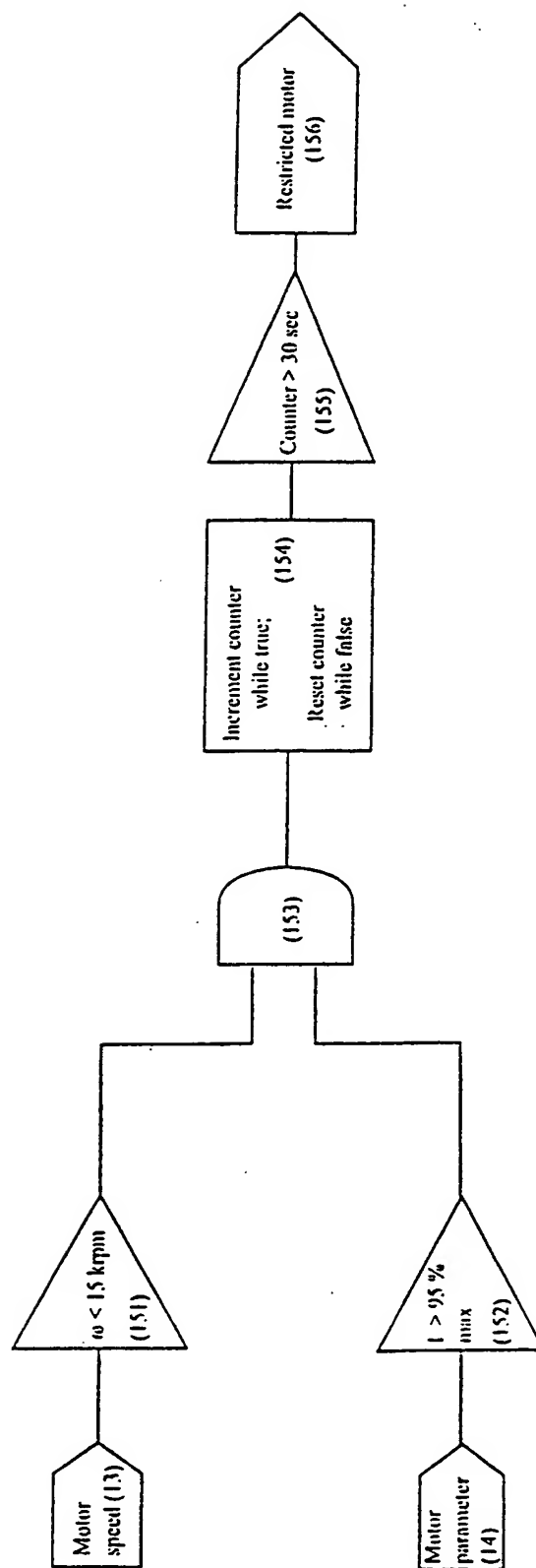


Figure 15: Detect Restricted Motor

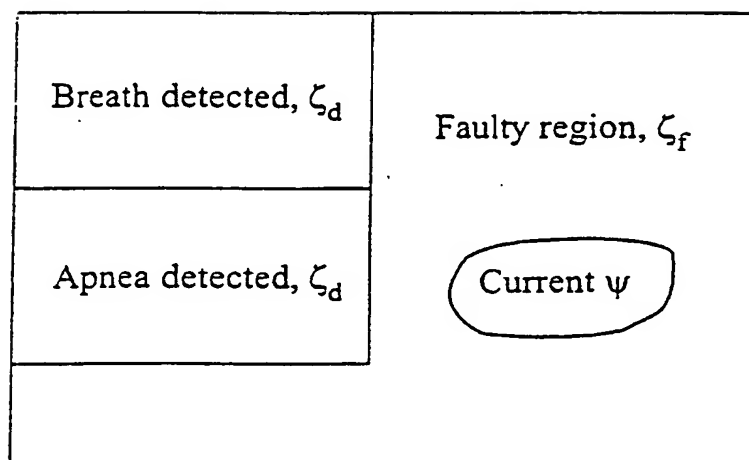


Figure 16: Software fault

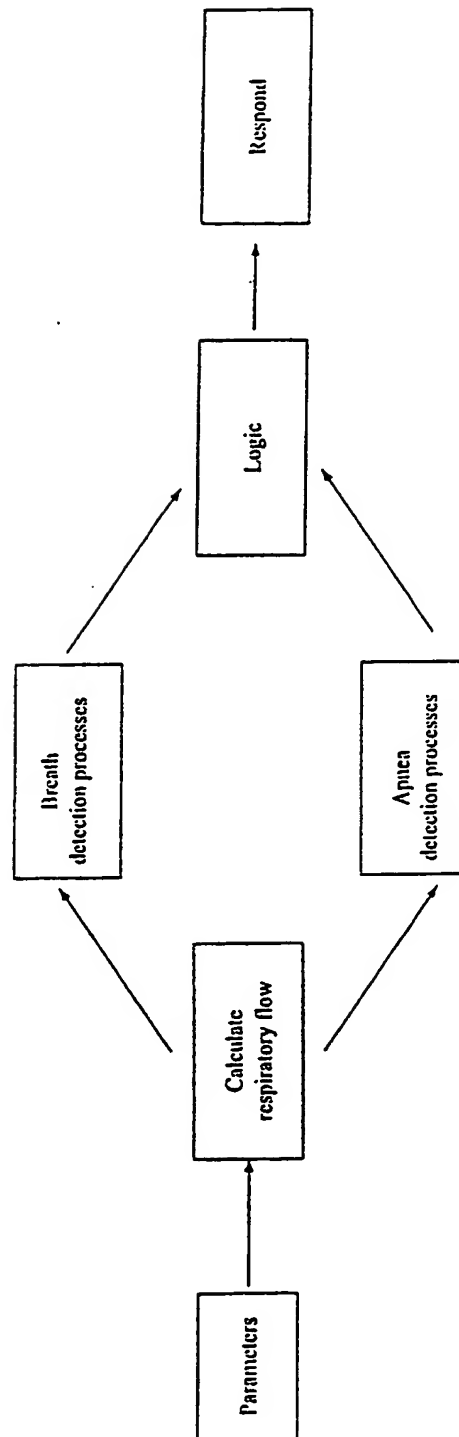


Figure 17: Software fault detection processes